DOCUMENT RESUME

ED 360 889 HE 026 621

AUTHOR McLachlan, J. E.; Wood, V.
TITLE International Collaboration on the Evaluation of Lecturing Techniques.
PUB DATE 18 Aug 93
NOTE 19p.; Paper presented at the EAIR Annual Forum: Higher Education in a Changing Environment: Regional, National and Trans-National Issues (15th, Turku, Finland, August 15-18, 1993).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Faculty; College Students; Comparative Education; Evaluation Methods; Foreign Countries; Higher Education; *Intercollegiate Cooperation; International Cooperation; *Lecture Method; Questionnaires; *Student Evaluation of Teacher Performance; Teacher Effectiveness; *Teacher Evaluation
IDENTIFIERS *Catholic University of Louvain (Belgium); *Napier College (Scotland)

ABSTRACT

The Napier University Business School, Edinburgh, Scotland and the Katholieke Universiteit, Leuven, Belgium embarked on a 3-year collaborative research project to evaluate lecturing techniques at Napier and to compare the results of the evaluation at Napier with those achieved at Leuven. Leuven had developed the EVADOC Questionnaire to monitor lecture method teaching quality in the 1970s. This questionnaire focuses on clarification of instructional aims and objectives, recognition of students' backgrounds, preparation (content, explanation, media), interaction, and evaluation of assessment. These are combined with student perceptions of teachers' directing, organizing, communication, stimulating, and motivating behaviors. During the pilot year at Napier eight lecturers took part in the study and distributed the questionnaire to their students. The completed answer sheets were then sent to Leuven for analysis. Results confirmed the validity of the questionnaire for evaluating lecturing behavior at Napier. As a consequence, the 3-year project was undertaken and the first year completed with 9 lecturers taking part and 434 student responses in April 1993. The project also provided a seminar for interested staff and private interviews with lecturers to provide feedback. In addition the project initiated a pattern of two visits to Leuven a year to compare results. (JB)

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NAPIER UNIVERSITY

International Collaboration on the Evaluation of Lecturing Techniques

Professor J E McLachlan
Dean, Napier Business School

V Wood, Business School Administrator

Napier Business School
Napier University
Sighthill Court
Edinburgh EH11 4BN

031 455 3369

Presented at the EAIR 15th Annual Forum
Higher Education in a Changing Environment:
Regional, National and Trans-National Issues

Turku, Finland
15-18 August 1993

HE026 621

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INTERNATIONAL COLLABORATION ON THE EVALUATION OF LECTURING TECHNIQUES

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1. INTRODUCTION

In Session 1992-93 Napier University Business School, Edinburgh, Scotland and the Katholieke Universiteit, Leuven, Belgium embarked on a three-year collaborative research project to evaluate lecturing techniques at Napier and to compare the results of the evaluation at Napier with those achieved at Leuven, bearing in mind that these institutions exist in two very different educational cultures.

2. EXISTING RESEARCH INTO THE EVALUATION OF LECTURING BEHAVIOUR AND TECHNIQUES

Research into evaluating lecturing behaviour and techniques has been ongoing for many years and there have been many publications on this subject - Lowyck 1975; Cohen P A 1980 and De Neve and Janssen 1982 to name but three. Research in this area began at Leuven in 1975 and, following the establishment of an Educational Services Research Unit at Leuven in 1977, this research into lecturing techniques was led by Professor Hubert de Neve. The use of a questionnaire (EVADOC) based on Van Gelder's model for didactic analysis was found to be a sound tool for carrying out such an evaluation and has now been used for many years at Leuven.

3. INITIATING COLLABORATIVE RESEARCH

3.1 Establishing Links with the Katholieke Universiteit Leuven

Following an initial approach to the British Council in August 1990 regarding its British-Flemish Academic Research Collaboration Programme contact was made with Professor Hubert de Neve of Leuven University who was involved in research in areas similar to our own research interests.

3.2 Exploratory Visits

Two exploratory visits were made to the Katholieke Universiteit, Leuven in February and November 1991 during which the basis of a pilot study into lecturing behaviour and techniques at Napier University was established. Those involved at this stage of the research project were Professor Hubert de Neve and Professor Herman Verhaeghe of the Educational Services Research Unit at Leuven and Professor Jeff McLachlan and Mrs Vivienne Wood of the Business School at Napier University. However, Professor de Neve left the University in March 1992 and his role in the Project was taken over by Professor Piet Janssen, Director of the Educational Services Research Unit.

4. OBJECTIVES OF THE RESEARCH PROJECT

During the preliminary discussions it was agreed that, despite the differences between the educational cultures of Belgium and the United Kingdom, it would be useful to

test the questionnaire and methods used at Leuven for evaluating lecturing behaviour and technique in another educational culture and to endeavour to draw comparisons between the results achieved in Leuven and Scotland, following the conduct of a formal three year project.

Given the impending change of status of Napier from a Polytechnic to a University, and the possible implications of the establishment of a Scottish Higher Education Funding Council in terms of accountability and quality of delivery, it was recognised that the opportunity to carry out and test such a system, would be highly advantageous.

The establishment of a pilot project, to test the validity of the questionnaire, modified for use in Napier, was seen to be an essential pre-requisite to the establishment of the formal three year project.

5. CONSTRUCTION OF THE EVADOC QUESTIONNAIRE BY LEUVEN UNIVERSITY

5.1 The Need for Lecturing Evaluation

As a result of the 'open access' to the University system operated in Belgium and the ever increasing first year enrolments the need for high quality teachers who could cope efficiently with the large sized classes became crucial and in response to requests from academic staff and students for steps to be taken to stimulate interest in the quality of teaching the Educational Services Research Unit was established in 1977.

Interest in the techniques of lecturing evaluation had already been fostered in 1975 with attention being paid to the evaluation systems already in force in the United States, Canada and Australia but many of the instruments used were rather complex and involved lengthy processes for completion of questionnaires and the analysis of the results.

In 1978 Leuven considered the use of American didactic factor analysis methods (Menges 1973) conceding that if relevant feedback was to be obtained then only those statements/questions that would have such relevance in the eyes of didactic experts would be acceptable. The resulting EVADOC Questionnaire constructed by Leuven was based on Van Gelder's model for didactic analysis (Van Gelder et al: 1971:1972:1974).

5.2 Structuring the EVADOC Questionnaire

5.2.1 Aspects of Lecturing Behaviour

The EVADOC Questionnaire was constructed to assess the quality of lecturing behaviour, by means of student evaluation, with a view to identifying areas of weakness requiring improvement and areas of excellence that could serve as best practice.

The EVADOC questionnaire consists of 97 statements in relation to seven specific observable aspects of teaching activity/technique identified by Glaser (1962) and Van Gelder (1975) which are considered to be essential for high quality teaching.

These aspects of teaching activity/technique are:

(a) **Clarification of instructional aims and objectives:** Does the lecturer clarify (i) his own objectives in relation to the areas he will cover and for what purpose; (ii) the relevance of his subject within the course as a whole and the way in which it integrates with the other subjects of the course.

(b) **Recognition of Students' Backgrounds:** Does the lecturer identify and build upon the students' prior knowledge and experience and their interests linking these factors to the material being taught?

(c) **Preparation**

(i) **Content** Is the content of his lectures carefully prepared including the selection of relevant, interesting and topical materials?

(ii) **Explanation** Has the lecturer prepared clear, structured and concise explanations of the topics to be covered?

(iii) **Media** Does the lecturer make good use of teaching aids such as blackboards, audio visual aids, course materials etc?

(d) **Interaction:** Does the lecturer interact with the students by creating opportunities for question/answer sessions, discussion, exchange of ideas etc?

(e) **Evaluation of Assessment :** Does the lecturer make it clear to the students what they are expected to learn if they are to succeed in assessments/examinations and does he explain the format of the assessments, familiarising the student with the type of questions they should expect?

These seven components of teaching activity/technique formed the general framework of the questionnaire. However, as a result of research being conducted elsewhere (Lowyck J 1975) which had shown that students evaluate teaching activities/techniques in terms of their perceptions of the way in which they facilitates their studying behaviour, their ability to learn, understand, analyse and apply the knowledge and thus to perform well and to progress to the next stage

of their course, a factor analysis of the students' responses to the questionnaire was carried out (De Neve and Janssen 1982). This factor analysis revealed five major factors or perception dimensions that, from a student's point of view indicate good teaching technique. These same five factors were identified in a number of studies of different questionnaires, constructed to evaluate different teaching formats, and evidence of their consistency was found in a survey conducted by Marsh in 1987, which led to the conclusion that these factors, or perception dimensions, indicated the aspects of teaching activities/techniques that students would wish to see fulfilled.

5.2.2 The Five Perception Dimensions of Good Lecturing Behaviour

The five perception dimensions of good lecturing behaviour identified are as follows:

(a) **Directing (Guiding) Behaviour**

When a lecturer directs the students' study behaviour he guides them towards achieving future objectives/goals, ie passing the examination/progressing to the next stage of the course. He will do this by helping them to prepare for the examination/ assessments by clarifying the requirements of the examination/assessments; stressing the important aspects of the course; alerting the students to difficult areas of the syllabus and preparing students for the structure of the examination/assessment in question.

(b) **Organising Behaviour**

Well organised lecture behaviour enables the student to understand the information being provided in a logical and coherent pattern which is clearly the first prerequisite for a student to be able to assimilate knowledge. An organised lecturer will create a clear structure for his/her lectures and will make good use of visual aids.

(c) **Communicating Behaviour**

Good communication skills aid the growing confidence of the student and can be experienced in a number of teaching behaviours.

Students expect regular support and feedback to tell them whether they are going in the right direction or not and this depends on the lecturer's ability to communicate effectively with the students. This can be made easier if the lecturer is open to question and discussion and is ready to listen to the

opinions of the students. However, good communication skills are only effective in so far as the other dimensions of good teaching behaviour are present, ie directing; organising; stimulating and motivating.

(d) **Stimulating Behaviour**

The more attention a lecturer pays to the meaning of his course, the greater is the chance that the material used in his lectures will be perceived by the students as providing an enriching experience in which learning and real life have become integrated. As a result the students will feel confident in their understanding of the subject and in control of their learning/study pattern, being able to relate new facts and information to their previous knowledge. Evidence of stimulating behaviour will include discussion, the use of interesting and relevant examples which enliven lectures and systematic explanations of where new topics fit into what has already been learned.

(e) **Motivating Behaviour**

Motivating or inspiring behaviour implies that the lecturer involves the students in their own learning process by deepening their interest in the subject.

The student will feel that he is personally involved in his studying and will feel inspired to undertake a thorough analysis of the material before him which contributes to the deep level thinking approach so necessary for effective studying.

Here the lecturer will be genuinely interested in his/her subject, presenting subject material in a clearly understandable format and encouraging the students to think of the subject in a wider context.

It was therefore necessary to combine these dimensions of teaching activities/techniques with the students' perception dimensions if an accurate evaluation of lecturing behaviour was to be carried out.

6. METHODOLOGY FOR ANALYSING QUESTIONNAIRE RESULTS

6.1 Matrix Approach

On the one hand the structure of the questionnaire was based on a theoretical

description of 'good lecturing' using specific observable aspects of teaching activities/techniques while on the other hand analysis of the questionnaire results in terms of the five perception scores indicated how well a lecturer was facilitating the students' study behaviour.

By representing the Questionnaire in a carefully designed matrix based on the student perception dimension (columns of the matrix) and an educational component or teaching activities/techniques dimension (rows of the matrix), each cell of the matrix represents a specific lecturing strategy which can be interpreted as relevant from an educational point of view and as an opportunity to facilitate studying behaviour.

6.2 Completion and Analysis of the Questionnaire

Students are asked to express the extent to which they agree or disagree using a six-point scale, with the statements formulated in relation to the observable lecturing behaviours of the lecturer concerned. Their answers are recorded on optically read sheets the data from which is analysed by a computer program developed by Leuven. In using a six point scale the point which differentiates an acceptable score from an unacceptable score is 3.5. The programme calculates the mean scores for the five perception dimensions, the seven teaching activites/techniques dimensions and for each cell of the matrix both in terms of the mean of all of the lecturers' scores and of the mean of the individual lecturer concerned. This enables each lecturer to see their own level of scoring in terms of absolute scores and in terms of their relative position compared with their colleagues.

7. FEEDBACK AND INTERPRETATION OF RESULTS

The feedback obtained in relation to each lecturer is kept totally confidential and is known only to those carrying out the evaluation and to the individual lecturer concerned. Feedback is presented in a written format and is discussed and interpreted in a face to face interview between the parties concerned. To be successful, praise should be given where areas of excellence are identified and the lecturer should be encouraged to discuss his techniques with colleagues to ensure the spread of best practice.

Where areas of weakness are identified it is better to select one or two areas at most to be addressed by the lecturer over the coming year. Personal advice can be given as to how the specific aspects of lecturing behaviour can be improved and this can include referring the lecturer to a colleague who is known to have strengths in the area in question. Particular attention should then be paid to the area where weakness was identified when the lecturer is again evaluated. Lecturers experience a real sense of achievement and satisfaction when they obtain higher scores in a subsequent evaluation for an area previously identified as having some weakness.

In the past at Leuven only those lecturers asking to be evaluated have had their lecturing behaviour analysed by means of the EVADOC Questionnaire. However, a new policy on appointments of academic staff, both newcomers and for promotions, has recently been introduced which requires that candidates must not only give

evidence of their worth as a researcher but must also give a presentation of their teaching dossier. Evidence of having undergone the EVADOC evaluation is seen to be an advantage particularly as there is now a shift in policy at Leuven away from the main focus being placed on research skills to the need for quality teaching skills to be present as well.

8. ADAPTATION OF THE EVADOC QUESTIONNAIRE FOR USE AT NAPIER UNIVERSITY

Following the two exploratory visits to Leuven in 1991 the Flemish questionnaire was translated at Napier University and the questions were modified to suit the Scottish education system and the particular requirements of Napier University. The draft translation and modifications were assessed by Leuven and, following clarification of a number of areas relating to the education culture in Scotland, it was agreed that the modified questionnaire would be an appropriate instrument for carrying out the pilot evaluation of lecturing techniques at Napier. By conducting a pilot evaluation and by analysing the responses received, the validity of the modified questionnaire could then be tested and assessed.

The resulting EVALEC questionnaire, (EVAluation of LECturing technique), and bearing the logos of both Universities, was printed and reproduced at Napier for use in the pilot study.

9. CONDUCT OF THE PILOT STUDY

9.1 Completion of the EVALEC Questionnaire

Eight lecturers in the Napier Business School volunteered to take part in the pilot study in 1992. All of the lecturers taught first year students on degree and Higher National Diploma courses in the Business School. The questionnaires, together with the optically read answer sheets provided by Leuven, were distributed to the lecturers concerned at the beginning of the summer term for completion by students, in class time, in the week beginning 20 April. The completed answer sheets - 191 in total - were coded to ensure that the resulting data was attributed to the appropriate lecturer and sent to Leuven in mid-May for analysis by a graduate student in education - Sabine De Valck - who was carrying out the analysis of the data for her Masters Thesis, under the guidance of Professor Piet Janssen. There followed an exchange of correspondence, mainly by Fax, regarding clarification of a number of issues relating to the status and funding of Napier; the qualifications and ages of the participating students; the characteristics of the courses on which the students were enrolled and the professional qualifications and experience of the lecturers taking part in the pilot study. This level of detail was required before the validity of the factor analysis could be confirmed.

9.2 Initial Feedback

A meeting was arranged with Professor Janssen in Belgium in September 1992 to receive the initial feedback on the results of the Pilot Study. The results confirmed the validity of the modified questionnaire as a suitable tool for evaluating lecturing behaviour in an educational system outwith Belgium and for providing data that could be readily compared with similar data produced in relation to Leuven University.

So far as the evaluations of the individual lecturers were concerned Professor Janssen expressed some surprise at the high scores achieved by the Napier lecturers across the board.

Feedback for the individual lecturers was provided and included with a paper giving a brief explanation of the aims and purpose of the questionnaire, and guidelines on how the results should be interpreted. These results were passed to the lecturers concerned in sealed envelopes with a covering letter inviting any who wished to do so to discuss their results privately with Professor McLachlan.

10. ESTABLISHMENT OF THREE YEAR COLLABORATIVE RESEARCH PROJECT

As a result of the successful completion of the pilot study and of the confirmation of the validity of the modified questionnaire as a tool for evaluating lecturing behaviour a three year collaborative research project has now been established between Napier University and Leuven University. The first year of the project has been completed with nine lecturers volunteering to take part in the evaluation involving 434 student responses, which was completed in early April 1993. This time, while all of the lecturers taught on Degree and Higher National Diploma courses some taught first year students and some taught second year students.

The same procedures were adopted whereby the completed optically read answer sheets, coded to identify individual lecturers, were sent to Leuven for analysis. However Professors Janssen and Verhaeghe visited Napier in June 1993 to give a seminar to interested staff on their research activities in general and on the collaborative research in particular.

This seminar was followed by private interview with the participating lecturers to provide them with the results of the evaluation, to discuss their scores and to identify any areas requiring particular attention.

There will be a return visit to Leuven in the Autumn to discuss initial comparison of results between Leuven and Napier and to progress the project. A similar pattern of two visits per year will be adopted for the duration of the project with lecturers being interviewed to provide them with feedback in relation to their own evaluations.

11. ANALYSIS OF RESULTS 1992 AND 1993

11.1 Guidelines for Interpreting Results

Given the 6-point scale adopted for completion of the questionnaire, and the fact that the point which differentiates an acceptable score from an unacceptable score is 3.5, mean scores should be interpreted in accordance with the following guidelines:

Mean Score	Category	Students' Opinion	EVALEC Interpretation
1.0 - 1.49	1	Strongly disagree	Highly unacceptable
1.5 - 2.49	2	Disagree	(Very) poor
2.5 - 3.49	3	Mildly disagree	Unacceptable
3.5 - 4.49	4	Mildly agree	Acceptable
4.5 - 5.49	5	Agree	(Very) good
5.5 - 6.00	6	Strongly agree	Excellent

When interpreting the results as presented in the matrix attention should first of all be paid to the five student perception scores - the totals of the five columns. If a score is below standard or comparatively low, the individual cells ot that column will reveal the specific lecturing strategy requiring attention. Improvement of that strategy will in turn improve the related lecturing behaviour.

The Total row scores give more general information regarding the teaching activities/techniques which have been displayed - to a greater or lesser degree - and make it possible to identify priority areas where increased effort is required if lecturing behaviour is to be improved.

11.2 Mean Scores Achieved by Napier Lecturers in the Pilot Study, 1992

EVALEC-matrix: mean scores for the perception dimensions, specific cell scores and teaching activities/techniuqes

	directing n = 15 alfa = .91	organising n = 9 alfa = .85	communicating n = 15 alfa = .88	stimulating n = 13 alfa = .89	motivating n = 26 alfa = .96	total
clarification of instructional aims and objectives n = 8 alpha = .83	setting the subject in context of future objectives and goals 4.36		plotting the course/way in which topics will be covered and linked 4.43		demonstrating relevance of subject content and of the subject to the student's overall development 4.48	4.44
recognition of students' backgrounds n = 12 alpha = .89	avoiding traps - alerting to difficult areas 4.44		linking up with experience and knowledge 4.39	tuning in to the heterogeneity in the classroom/ accepting different points of view 4.42	promoting interest and encouraging deeper investigation 4.40	4.41
preparation: content n = 13 alpha = .88	anchoring new material within overall subject context 4.29	structuring the lecture/choice of content 4.90	clarifying expectations and views in relation to subject content 4.04	offering (a broad) perspective/linking the subject to the cause overall 4.31	through careful preparation providing a logical framework which engenders creative thought 4.66	4.46
preparation: explanation n = 12 alpha = .85	highlighting important aspects/ topics 4.60	building up the argument/ relating topics in sequence 4.78	stimulating thinking explanations in an 4.32	offering clear of interest in own adaptable way 4.30	sharing evidence subject and making topics easy to understand 3.94	4.35
preparation: media n = 12 alpha = .84	suitability of course material and illustrations 4.70	using the board effectively 4.55 using other media effectively 4.37	co-ordinating study materials with lecture content 4.06 taking notes 4.40	using interesting examples to enliven the lectures 3.91	using topical and relevant examples and illustrations in a well balanced way 4.35	4.41
interaction n = 11 alpha = .85		prepared to deal with the reactions of the students 4.27 using the voice 4.80	dealing with questions/comments 4.60	entering into discussion/answering questions outwith the material to be learned 4.20	keeping contact and interest ongoing 4.49	4.48
evaluation of assessment n = 10 alpha = .81	clarification of the assessment - format 4.58 - criteria/areas to be learned 4.53		familiarising students with the content of examinations/other assessments 4.56		explaining the specific expectations in relation to the requirements of assessment 4.42	4.52
Total	4.49	4.62	4.38	4.25	4.42	4.42

n = number of statements involved
alpha must be .7 or over to be of statistical significance

11.3 Mean Scores Achieved by Napier Lecturers in the first year of the Collaborative Research Project; 1993

EVALEC-matrix: mean scores for the perception dimensions, specific cell scores and teaching activities/techniques

	directing n = 15 alfa = .91	organising n = 9 alfa = .85	communicating n = 15 alfa = .88	stimulating n = 13 alfa = .89	motivating n = 26 alfa = .96	total
clarification of instructional aims and objectives n = 8 alpha = .83	setting the subject in context of future objectives and goals 3.56		plotting the course/way in which topics will be covered and linked 2.83		demonstrating relevance of subject content and of the subject to the student's overall development 3.93	3.44
recognition of students' backgrounds n = 12 alpha = .89	avoiding traps - alerting to difficult areas 2.39		linking up with experience and knowledge 2.44	tuning in to the heterogeneity in the classroom/ accepting different points of view 4.60	promoting interest and encouraging deeper investigation 4.28	3.43
preparation: content n = 13 alpha = .88	anchoring new material within overall subject context 4.02	structuring the lecture/choice of content 4.14	clarifying expectations and views in relation to subject content 2.90	offering (a broad) perspective/linking the subject to the cause overall 4.04	through careful preparation providing a logical framework which engenders creative thought 4.34	3.89
preparation: explanation n = 12 alpha = .85	highlighting important aspects/ topics 3.48	building up the argument/ relating topics in sequence 4.42	stimulating thinking explanations in an 3.39	offering clear of interest in own adaptable way 2.49	sharing evidence subject and making topics easy to understand 3.38	3.43
preparation: media n = 12 alpha = .84	suitability of course material and illustrations 4.44	using the board effectively 4.79 using other media effectively 4.08	co-ordinating study materials with lecture content 2.54 taking notes 4.09	using interesting examples to enliven the lectures 4.79	using topical and relevant examples and illustrations in a well balanced way 4.44	4.17
interaction n = 11 alpha = .85		prepared to deal with the reactions of the students 4.29 using the voice 2.30	dealing with questions/comments 4.00	entering into discussion/answering questions outwith the material to be learned 3.76	keeping contact and interest ongoing 3.84	3.64
evaluation of assessment n = 10 alpha = .81	clarification of the assessment - format 4.38 - criteria/areas to be learned 4.50		familiarising students with the content of examinations/other assessments 3.21		explaining the specific expectations in relation to the requirements of assessment 3.90	4.00
Total	3.82	4.00	3.17	3.94	4.02	3.75

n = number of statements involved
alpha must be .7 or over to be of statistical significance

12. SUMMARY OF RESULTS

12.1 Pilot Study

The overall mean scores attained by the Napier lecturers in the Pilot Study were commended and some surprise was expressed by Leuven regarding their high level of scoring. No total mean score fell below the acceptable level - 3.5 and most were weighted towards the top of the acceptable range falling between 4.25 and 4.49. The two total scores for Assessment Evaluation and Organising Behaviour fell into the very good range at 4.52 and 4.62 respectively.

So far as the means of individual cell scores were concerned 21 of the 33 scores were between 4.0 and 4.49 - at the top of the acceptable range - and 10 fell into the very good range between the scores of 4.53 and 4.9. The remaining two mean cell scores of 3.91 and 3.94 were well within the acceptable range.

12.2 First Year of Collaborative Research Project

All of the overall mean scores attained by the Napier lecturers were in the acceptable range (if 3.44 and 3.43 are interpreted as acceptable) except for one score of 3.17 for Communicating Behaviour.

So far as the means of the individual cell scores were concerned 12 of the 33 scores were between 4 and 4.49 - at the top of the acceptable range - and 4 fell into the very good range between the scores of 4.5 and 4.79. Of the remaining 17 mean cell scores 7 were again within the acceptable range. However 6 mean cell scores fell into the unacceptable range and 4 fell into the (very) poor range with the lowest mean score recorded of 2.30. In other words 30% of the mean scores for individual cells were less than acceptable.

12.3 Overall Summary

The fact that all except one total mean scores achieved were positive scores, ie in the acceptable range or above, indicated that no major remedial action was required in any given area. However, when the mean scores achieved by the individual lecturers in 1993 in individual cells were studied there was a pattern of lower score achievement across the board in relation to 'Communicating Behaviour'. In particular it was seen that some remedial action would have to be taken in relation to the extent to which lecturers explained their lecture plan in advance; linked their lecture content to the students' prior knowledge and experience; clarified their expectations and personal views in relation to the subject content; co-ordinated study materials with lecture content and stimulated thinking as a result of the way in which they explained their subject. In addition there was a tendency for lecturers to tell students that the assessments would be difficult and that they would have to work hard or fail rather than the adoption of an encouraging, helpful approach to build up the students' self confidence.

The appropriate lecturers, in the private interview situation, were alerted to these perceived weaknesses and encouraged to take positive steps to improve these areas of their teaching activities/techniques.

13. PRELIMINARY CONCLUSIONS

The results of the first two years of lecturer evaluation have been encouraging in so far as they have confirmed the general high quality of teaching being carried out at Napier. The fact that those lecturers involved in the project so far have received good evaluation reports has encouraged other lecturers to volunteer to be assessed in the second/third years of the project. For this type of evaluation to be successful it is essential that the lecturers trust those carrying out the evaluation to maintain the confidentiality of their reports and that results are discussed face to face to ensure that the scores are appropriately interpreted and action agreed in relation to any identified weaknesses. In addition, should a number of weaknesses come to light, remedial action should be taken in only one or two aspects at a time if significant improvement is to be made in any area. In initial discussion with Leuven regarding future comparisons between the results obtained in the two Universities the following cultural differences between the Belgian and Scottish educational systems will have to be borne in mind:

(i) **the nature of the institution:** in the past Napier has placed a greater emphasis on teaching than on research while at Leuven it has been the opposite;

(ii) **the selection process:** at Napier, in general, the better qualified students are enrolled following a competitive selection process while Leuven has to cope with the open access system operated in Belgium, the only Faculty setting an entrance examination being the Faculty of Applied Sciences for prospective engineers;

(iii) **the standard of entry:** at Napier the educational standard of first year students on entry is, in the main, comparable as most enter on the strength of SCE or GCE qualifications - the product of nationally set curricula and examinations. There is no national education structure/examination scheme in Belgium - each secondary school devising and assessing its own courses leading to a wide disparity in ability and in subjects covered on entry to University

(iv) **degree of motivation:** in general students at Napier are reasonably well motivated - choosing to come to University because they want to do so - while at Leuven motivation of first year students is a real problem with many making use of their right of access to delay having to find employment for one year;

(v) **approach to teaching/learning:** Napier tends to use a student-centred/self study approach involving teaching/learning packages; directed study, timetabled tutorials and continuous assessment. This is not the case in Leuven where teaching is mainly devoted to the mass lecture approach and the only assessment is the end of year examination.

14. FUTURE DEVELOPMENTS

The initial evaluations have already highlighted differences in the scores achieved at Napier and at Leuven - not only in the levels of the scores attained but also in the areas of comparative strengths and weaknesses.

Evaluation will continue in 1994 and 1995 and steps will be taken later this year to begin a structured comparison of results, supported by funding provided by the Ministry of the Flemish Community in Belgium.

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